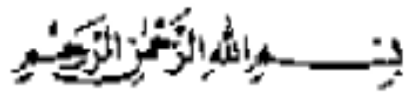
S I G M A | SHARIAH

ISLAMIC CORE BANKING SOLUTION Overview

Overview Outline

I. MANAGEMENT SUMMARY

Today's banking competition is no longer just from attractive interest rate, but more important is how convenience the bank's customers to do the banking transaction and the quality of excellent services from the bank officer.

Realizing that to achieve both objectives, the right Information Technology solution is a must and finding the right partner to hand-in-hand execute and maintain the solid Integrated Syariah Islamic Core Banking System is also a critical success factor.

PT. Sigma Cipta Caraka, as the leading Information Technology Solution Provider since 1987, has proven to the banking business community by providing the solid and Integrated Core Banking System that has been implemented successfully at more than 30 Banks and since 1999, PT. Sigma Cipta Caraka and Bank Syariah Mandiri has conduct a join application development, to build Syariah Islamic Core Banking System called SIGMA SHARIAH and has successfully implemented SIGMA SHARIAH Core Banking System at Bank Syariah Mandiri on first quarter 2000, and at Bank Danamon on second quarter 2001.

This overview describes our understanding of Banks objective of introducing a new way to do banking called Syariah and the proposed solution that meet the requirements also an overview of functionality of each individual module of SIGMA SHARIAH, Islamic Core Banking System.

With our experience and competency for more than 12 Years in implementing successfully Core Banking Solutions at more than 30 Banks (before the bank liquidation era) and also successfully implementing Syariah Core Banking System, we have the strong confidence that with good teamwork with you and your whole organization, this project can be a successful project for both of us.

In summary, PT. Sigma Cipta Caraka (SIGMA) was established in 1987 focusing in providing a solid Integrated and On-line IT Solution for Finance Industry, mainly banking.

Starting with only less than 10 people, Sigma currently has grown into more than 400 people with around 8 subsidiaries in the Sigma Community. During period of 2000-2001 our Research and Development cost is US$ 1,300,000.00. Sigma can be your one-stop-service for becoming your partner in developing, enhancing and managing your Information Technology needs. We also attach our company profile for more detail information about Sigma Community.

II. SIGMA AI SHARIAH OVERVIEW

To apply the Banking IT system based on the above description and to anticipate the growth of account data and transaction volume, Banks to use the midrange computer system (Mini Computer). In addition, Banks also needs the integrated software (banking application system) that has good security and control for daily operation.

We will provide "SIGMA AI SHARIAH ***Islamic Core Banking Software, Implementation and support"***.

SOLUTION FOR ISLAMIC BANKING APLICATION

1. MIDRANGE COMPUTER SYSTEM (AS/400)

Online Database

In this system, customer data and transaction data from all of the branches, sub-branches and head office can be processed on-line since all of the branches connected online to the head office.

Operating System

The operating system of midrange computer system covers product from low-end range to high-end range. So, if the hardware capacity upgrade as the bank's growth, the application system or even the operating system still can be used without any changes.

2. ISLAMIC CORE BANKING APPLICATION MODULE

SIGMA AI SHARIAH Core Banking System

In general, the criterion of our core banking system is as follow:

- **User friendly,** the screens and menus are very communicative and meet the user need for the operation.
- **Integrated System,** Integration between one module to other modules, e.g. the deposit interest on the due date can be transferred to the current account or saving account.
- **Password,** as the security of the system will log all of the activities being done by the user. The security system protects the unauthorized users to use the system.
- **Centralized data,** to ease the data consolidation from all of the branches and sub-branches, also to ease the need of Management Information System (MIS).
- **Parameterize,** to ease the bank produces new products without any changes in the program.

- **Dual Control / verification,** as the control of all of the transactions being done by the user since the transaction should be checked first before authorization.
- **Customer number,** as the media of customer data portfolio, so by using the customer number, the system will automatically take all of the customer accounts data.
- **Multi currency** is a facility to perform foreign currency transaction, e.g. sell / buy foreign currency.
- **Multi branches** is used to process customer and transaction data from branches and to easy branch data consolidation that makes easy to produce report for Management purpose (MIS).
- **Auto save,** is a facility that gives benefit for current account customer who has the insufficient balance but he has a lot of money in his saving account. The system will automatically debit to his saving account instead of current account.
- **Modular System,** to ease the implementation of the system since the module can be implemented step by step based on the branch condition that is going to be automated.
- **Automatic Journal,** No need to use form for user entry since all of the transactions of current / saving / deposit / Financing account will be automatically booked by the system and at the end of the day the system will automatically post it to the General Ledger.
- **Cheque and BG ("Bilyet Giro") maintenance,** to protect blocked Cheque / BG / Stop Payment which its receipt has not returned back to the bank yet or the used cheque can not be endorsed.
- **Full Teller System / One Stop Service** that can serve all of the transactions related to the customer account, so it can expedite the process.
- **Customer Service / Information,** customer activities can be got from the customer service, e.g. Opening Account, On request statement account, transaction information, etc.

The modules of Core Banking System are:

1. Retail Module
2. General Ledger Module
3. Deposit Module
4. Financing Module

III. SIGMA AlSHARIAH FEATURES:

1. SIGMA AlSHARIAH Retail Module

SUMMARY
With SIGMA AlSHARIAH RETAIL, your institution may offer a wide range of retail banking products and services. The Retail Module will process a wide range of transactions related to multiple accounts, which include Wadiah account and Mudaraba account.

Feature:

- **Customer Information**
  Automatically tracks and correlates all of the relationships your customer has with institution providing management completed customer portfolio information.

- **Product Definition**
  - Parameterized Product Definition allows your institution to introduce and defines retail banking account products in the most cost effective and timely manner.
  - Confidentiality Account for Payroll Processing Product can be define.

- **Current & Savings Facilities**
  Provides account maintenance function starting from easy account opening, variety of profit distribution calculation and other maintenance features such as standing order and auto save.

- **Integration**
  Online real time connectivity from SIGMA AlSHARIAH DEPOSIT and batch connectivity to SIGMA AlSHARIAH GENERAL LEDGER.

- **Multi Currency**
  Cater for cross currency transaction and extensive checking to selling or buying rate.

- **Multi Branch**
  Cater for Centralize Back Office to increase Operation productivity.

- **Cheque / BG Maintenance**
  Cater for Cheque/BG Maintenance

- **Override Screen**
  Provide transfer screen for override transaction

- **Cash Basis Concept**
  Cash basis posting for profit distribution calculation and automatically post

BASIC PROCESSING FEATURES

- **Account Maintenance**
  - Easy opening account with extensive standard default values.
  - Flexible *nisbah* definition at account level.
  - Passbook or Statement Account by product
  - Account statement & advice are printed automatically.
  - Variety of services on account maintenance such as blocked check, auto save, standing instruction.
  - *Nisbah* and charges are capitalized automatically.

- **Profit Distribution Calculation**
  - Credit calculation :
    - Profit distribution calculation types.
      1. Threshold average balance
      2. Tiered Average Balance
  - Parameterized *nisbah* definition on product or account level.
  - Parameterized bonus definition on product level.

- **Transactions**
  - Cross currency transaction with online validation to buy and sell exchange rate.
  - Varieties of transaction can be defined by the user independently.
  - ***Zakat*** calculation and automatic posting
  - Cater for unusual Indonesian Cheque clearing deposit which cleared amount is effective the next day after cheques are returned.
  - On line update to account balance and teller cash position.
  - Accommodate inter branch transactions within or between CPU.

- **Customer Information**
  - Real time customer portfolio inquiry helps supervisor in decision making.
  - Customer self-service.

CONTROL FEATURES

- On line validation for account balance and status for each transaction.
- Second person verification is needed for any changes on the system. On the transaction side, second level verification can be user defined independently depending on the transaction type & transaction amount
- Supervisor level of authority can be defined by the bank, such as authorized amount that can be overridden.
- Audit report for any changes on the system.

MANAGEMENT REPORTS

- Current account activity report to show the activity level of the bank's clients.
- Other operational report.

2. SIGMA SHARIAH General Ledger Module

SUMMARY

SIGMA SHARIAH GENERAL LEDGER maintains bank's financial data and provides the bank with a complete financial position / information.

FEATURES

- **Journal Entries**
  Menu input to post journal entries to accounting ledger.

- **Journal Posting From Other Module**
  Transaction journals submitted by other modules will be posted to the respective ledger without re-inputting the journal.

- **Automatic Cost Centre Allocation**
  Automatic allocation of overhead expenses to respective cost centre is available.

- **Automatic Periodic Journal Entries**
  Automatic journal entries posted periodically to accommodate for a straight line fixed asset depreciation.

- **Report Generator**
  Easy to use report generator enable the finance department to design a variety of financial reports format.

BASIC PROCESSING FEATURES

- **Ledger Maintenance**
  - Chart of account table will control the standardization of ledger opened on every branch.
  - Ledger statement can be printed monthly or upon request.

- **Automatic Processing On Accounting**
  - A periodic automatic balance transfer from foreign currency income & expense ledger to base currency (rupiah).
  - A yearly automatic balance transfer from rupiah income & expense ledger to current year profit & loss ledger.
  - Revaluation process on foreign currency position.

- **Financial Data Available On The System**
  - Aside from the basic data, the system also provides the following historical financial data for one fiscal year :
    - Average monthly balance per ledger.
      a. Last day of the month ledger balance.
      b. Current year budget amount.

- **Close Of Day (End Of Day) Process**
  Readiness of other module for bank operation is independent from the close of the day process on this module.

CONTROL FEATURES

- Audit trail for all changes made to the system is available.
- Menu can be distributed differently for each user.
- Debiting to income ledger need to be approved by second level authority.

MANAGEMENT REPORTS

- **Daily Financial Reports Are :**
  a. Daily journal
  b. Ledger balance list
  c. Balance sheet & profit and loss
     This report can be produced either in respective currency or in base currency (rupiah) with 3 level of consolidation:
     - By branch
     - Consolidated by area
     - Consolidated for all area

- **Free Format Report**
  Financial department can define different format of financial report easily.

3. SIGMA SHARIAH Deposit Module

SUMMARY

SIGMA SHARIAH DEPOSIT consists of Time Deposit Module (Mudaraba investment). It is designed to be parameter driven to a accommodate bank's flexibility in product development.

FEATURES

- **Product Definition**
  Parameterized product definition enables the bank to be innovative in developing new product.

- **Integrated**
  On line real time connectivity to SIGMA SHARIAH RETAIL and batch connectivity to SIGMA SHARIAH GENERAL LEDGER.

- **Multi Currency**
  Caters for more than one currency deposit placement.

- **Customer Information**
  Client's funding portfolio can be easily accessed.

- **Cash Basis Concept**
  Cash basis posting for profit distribution calculation and automatically post

BASIC PROCESSING FEATURES

- **Deposit Product Definition**
  - Easy deposit product definition cater for time deposit.
  - Automatic rolled over indicator and accounting journal posting can be defined for each product type.

- **Deposit Maintenance**
  - Reduce human error by defaulting various standard values such as the deposit counter rate (*nisbah*) placement.
  - Automatic production of certificate deposit and confirmation for deposit placement, profit distribution payment and rolled over.
  - On line retail account balance update on deposit placement and payment.
  - Automatic accounting entries generation on each deposit event including posting matured ledger on due date until it is withdrawn.
  - Tax calculation and automatic posting on interest payment.

- *Zakat* calculation and automatic posting
- Automatic rolled over for principal and interest with new counter rate on rolled over date.
- Blocked deposit indicator ensuring the time deposit can not withdrawn.

CONTROL FEATURES

- Retail account balance validation on deposit placement.
- Double control on deposit placement by second authorization function.
- Audit trail for all changes made to the system is available.

MANAGEMENT REPORTS

- Deposit by maturity date to help management on cash flow planning.
- Customer portfolio report and enquiry

4. SIGMA Al SHARIAH Financing Module

SUMMARY

SIGMA Al SHARIAH FINANCING, caters for financing (Murabaha, Mudaraba, Musyarakah) and servicing (Wakalah, Kafalah) processing. It provides control and reporting of the bank's Financing portfolio to minimize bank's risk.

FEATURES

- **Product Definition**
  Parameterized product definition enables the bank to be innovative in developing new product.

- **Integration**
  On line connectivity to SIGMA Al SHARIAH RETAIL and batch connectivity to SIGMA Al SHARIAH GENERAL LEDGER.

- **Multi Currency**
  Caters for different Financing currency withdrawal.

- **Credit Administration**
  Provides facility, financing and collateral administration.

- **Customer Information**
  Client's lending exposure to the bank can be easily accessed.

- **Cash Basis Concept**
  Cash basis posting for profit distribution calculation and automatically post

BASIC PROCESSING FEATURES

- **Limit Maintenance**
  - Financing withdrawal is controlled by facility amount.
  - Accommodate corporate lending type whereby a facility can be distributed to several customers or to several Financing products.
  - Multi currency feature whereby a facility can be withdrawn by different currency Financing.
  - It handles direct, indirect or non-revolving facilities.
  - Provision/Commitment fee calculation and capitalization on line to SIGMA Al SHARIAH RETAIL.

- **Financing Maintenance**
  - Provides 4 different processing type:
    1. Profit Sharing Processing (*Mudaraba*)
    2. Sales Contract Processing (Murabaha, *Ishtishna'*)
    3. Factoring Processing
    4. Risk Loan.
  - Accommodate financing process with penalty charges.
  - Maintaining Financing starting from withdrawal, repayment and past due.
  - Profit sharing and sales contract capitalization on line to retail account

- **Journal Generation**
  - Satisfy Central Bank regulation whereby facility amount is posted to contingent ledger automatically.
  - Automatic journal generation for outstanding Financing, past due Financing, income amount and fee amount.

- **Collateral Maintenance**
  Provide collateral information for customer portfolio enquiry purposes.

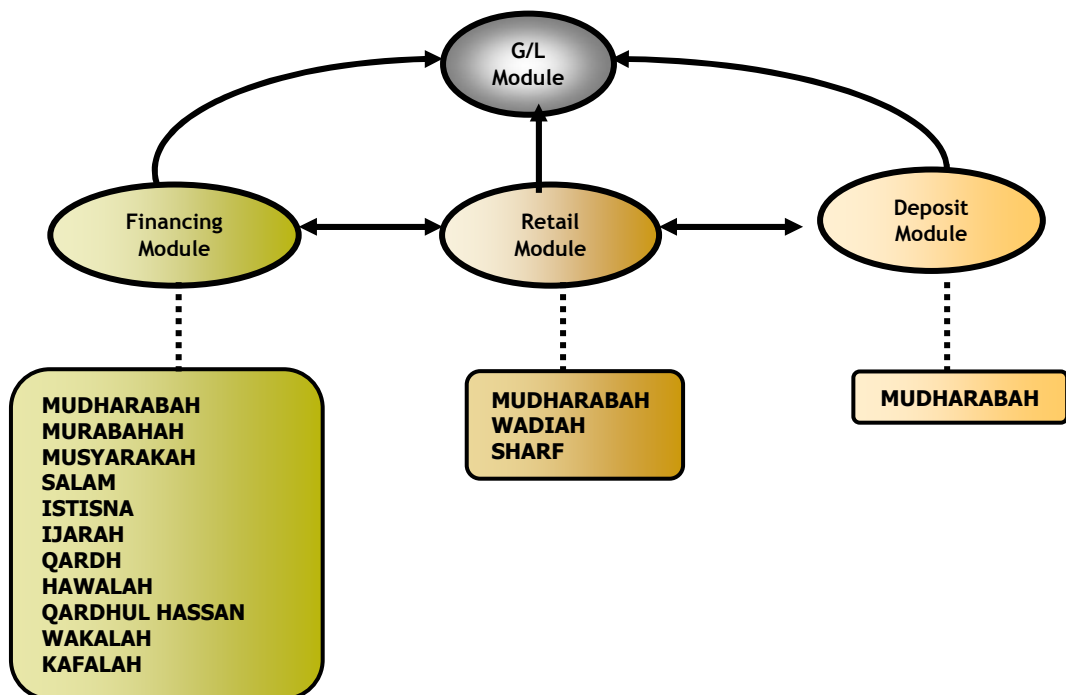
CONTROL FEATURES

- Automatic validate to Retail Account balance on manual or automatic repayment.
- Second person verification for any changes on the system.
- Facility can not be overdrawn unless specified otherwise.
- Indirect facility can not be withdrawn by direct Financing.
- Audit trail for any changes on the system.
- Daily transaction report
- Maturity Financing by period.

MANAGEMENT REPORTS

- Customer lending portfolio (a customer or a group of customers).
- Past due report.
- Outstanding Financing by industry type
- Outstanding Financing by Facility
- Facility Availability Report

IV. SIGMA SHARIAH PRODUCT RANGE

SIGMA SHARIAH Was developed on real business requirement, for that reason, it has fully covered wide range of Islamic Banking Product.
All of SIGMA SHARIAH's products have already integrated with all SIGMA SHARIAH's modules, as shown below :

And the definition of Product Islamic Banking can be seen at this table below :

CATEGORY	Islamic Banking Product	Related Product at Conventional Bank
FUNDING	Wadi'ah Yad Dhamanah	Giro Account
FUNDING	Wadi'ah Yad Dhamanah and Mudharabah	Saving Account
FUNDING	Mudharabah	Deposit
FUNDING	Mudharabah Muqayyadah	Not Applicable
FINANCING	Qardh	Refinancing
FINANCING	Musyarakah	Join financing
FINANCING	Ijarah	Hire Purchase
FINANCING	Mudharabah, Musyarakah, Murabaha	Export Financing
FINANCING	Mudharabah, Musyarakah, Murabaha	Working Capital Financing
FINANCING	Mudharabah, Musyarakah	Project Financing
FINANCING	Bai As Salam	Agriculture Financing
FINANCING	Ijarah Muntahiyah Bittamlik	Asset Acquisition Financing
FINANCING	Hiwalah	Factoring
SERVICING	Kafalah	Bank Warranty
SERVICING	Wakalah	Letter Of Credit (L/C)
SERVICING	Wakalah	Inkasso, Transfer
SERVICING	Mudharabah, Qardh	Securities
SERVICING	Sharf	Money Changer
SERVICING	Wadiah Al Amanah	Safe Deposit Box
SERVICING	Rahn	Pawning
SOCIAL FINANCING	Qardh Hasan	Social Financing